mechanized and manual processes that would be used to obtain loop qualification information.[216] Finally, Cavalier asserts that Verizon waived its right to assert its proposed loop qualification changes to section 11.2.12 by failing expressly to raise its issue V26 in responding to Cavalier's petition, and instead raising them as part of issue C9.[217]

66. Verizon claims to provide Cavalier and other competitive LECs with access to the same loop qualification information that Verizon itself uses.[218] Verizon maintains that this parity of access was confirmed in the *Verizon Virginia Section 271 Order*,[219] and that Cavalier's examples fail to demonstrate discriminatory conduct.[220] The changes made in Verizon's loop qualification systems since the time it received section 271 approval for Virginia improved the access or detail of information provided to competitive LECs.[221] Verizon states that its use of line-and-station transfers and line conditioning – not better access to loop qualification information – allows it to provide xDSL service where loop qualification information initially indicates that no xDSL-capable loop is available.[222] These capabilities already are available to competitive LECs, giving Cavalier an equal opportunity to provide xDSL service to these customers.[223]

67. Verizon claims that its loop qualification proposal is justified as the implementation of a process to which competitive LECs in a New York DSL collaborative agreed, approved by state commissions, including the Virginia Commission, and approved by the Commission for purposes of section 271 approval.[224] Finally, Verizon claims that it did not waive its right to propose revised loop qualification language regarding section 11.2.12 by raising them in the context of issue C9 rather than issue V26, because they are the same issue.[225]

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216 Cavalier Brief at 27; Cavalier Reply Brief at 12.

217 Verizon Answer/Response at 4.

218 Verizon Brief at 21; Verizon Direct Testimony of Albert Panel at 8.

219 Verizon Brief at 21 (citing *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21895, 21898, paras. 29, 34).

220 *Id.* at 23-24.

221 Verizon Reply Brief at 22; Tr. at 436-37.

222 Verizon Brief at 25; Verizon Direct Testimony of Albert Panel at 13. In the context of xDSL service, a "line-and-station transfer" involves switching a customer's service from a loop that is not suitable for providing xDSL service to an available loop that is suitable for providing xDSL service. Verizon Direct Testimony of Albert Panel at 13.

223 Verizon Brief at 25-26.

224 Verizon Reply Brief at 20-22. Verizon also claims that Cavalier has deleted much of the language that would give it a right to access loop qualification information. Verizon Brief at 20. We note, however, that Cavalier's revised proposed contract language restores much of those provisions. Final Proposed Language at 9-10 (Cavalier Proposed § 11.2.12).

225 Verizon Brief at 30; Verizon Rebuttal Testimony of Albert Panel at 13-14.

(ii) Discussion

68. We generally adopt Verizon's language, with the exception of section 11.2.12.2. For that section, as discussed below, we do not adopt either Party's proposed language, but instead we direct the Parties to submit in their compliance filings revised language in accordance with the *Virginia Arbitration Order* and *Virginia Cost Issues Arbitration Order*.[226] As an initial matter, we reject Cavalier's assertion that Verizon has waived its right to propose its changes to section 11.2.12, and agree with Verizon that issues C9 and V26 concern the same fundamental issues. Further, we note that section 11.2.12 clearly is in dispute under issue C9, and our rules permit the Parties to submit revised final offers with respect to the issues in dispute.[227] We thus find that Verizon's proposed section 11.2.12 is properly before us.

69. Further, Cavalier submits no direct evidence that indicates that Verizon's processes and procedures to identify xDSL-capable loops would provide unequal access to loop qualification information. Cavalier presents only the inference it draws from the circumstances where Verizon provides xDSL service.[228] Verizon adequately rebuts Cavalier's inference of unequal access by explaining how Verizon is able to provide xDSL service using line-and-station transfers and line conditioning, which it similarly makes available to Cavalier where requested to provision xDSL-capable loops.[229]

70. Verizon asserts that its proposed loop qualification language accurately describes the processes developed in collaboration with competitive LECs, and approved by the Virginia Commission and this Commission for purposes of section 271 approval. Cavalier does not claim that this process violates the Act or Commission rules, nor does it even state its specific concerns regarding Verizon's language. We find, however, that aspects of Verizon's loop qualification language regarding mechanized loop qualification information charges run counter to the Bureau's determinations in the *Virginia Cost Issues Arbitration Order*.[230] Further, we find Verizon's proposed section 11.2.12.2 language to be ambiguous as to whether Cavalier is

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[226] 47 C.F.R. § 51.807(f)(3); *see also supra* para. 16 n.49.

[227] 47 C.F.R. § 51.801(d); *see also supra* para. 11.

[228] One Cavalier witness testified that Cavalier has anecdotal evidence of customers seeking xDSL service from Cavalier, being "told it was unavailable" but ultimately obtaining xDSL service from Verizon. Cavalier Direct Testimony of Edwards at 1-2. However, Cavalier provides no evidence of which party told the customer that xDSL service is not available. Indeed, in the specific examples Cavalier provides, Cavalier, not the end-user customer, is the party receiving the loop qualification information. Similarly, Cavalier, not Verizon, is the party informing Cavalier's potential customer that xDSL service is not available when, in fact, it might be possible for Cavalier to provide xDSL service to that customer following conditioning of the loop or a line-and-station transfer. *See* Cavalier Brief at Ex. C9-1. We thus find no evidence that Verizon is misleading customers regarding the availability of xDSL service when provided by Cavalier.

[229] To the extent that Verizon regularly performs such activities to provide service to its own customers, it must perform those functions for Cavalier, 47 C.F.R. § 51.319(a)(8), and Verizon does. Verizon Brief at 25-26.

[230] *Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17963, para. 616 (disallowing mechanized loop qualification information charges); *see also infra* para. 90.

restricted from using alternative methods of loop qualification generally available to other competitive LECs, contrary to the Bureau's determinations in the *Virginia Arbitration Order* and the *Virginia Cost Issues Arbitration Order*.[231] Consequently, we do not adopt Verizon's proposed section 11.2.12.2. Because we reject the language that both Parties submitted, pursuant to section 51.807(f)(3) of the Commission's rules we direct the Parties to submit in their compliance filings revised language in accordance with the *Virginia Arbitration Order* and the *Virginia Cost Issues Arbitration Order*.[232]

(iii) Arbitrator's Adopted Contract Language

71. As discussed above, the Arbitrator adopts the following language:

> 11.2.12 – "Digital Designed Loops" are comprised of designed loops that meet specific Cavalier requirements for metallic loops over 18k ft. or for conditioning of ADSL, HDSL, IDSL, SDSL or BRI ISDN (Premium) Loops. "Digital Designed Loops" may include requests for:
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> A) a 2W Digital Designed Metallic Loop with a total loop length of 18k to 30k ft., unloaded, with bridged tap(s) removed, at Cavalier's option;
>
> B) a 2W ADSL Loop of 12k to 18k ft. with bridged tap(s) removed, at Cavalier's option;
>
> C) a 2W ADSL Loop of less than 12k ft. with bridged tap(s) removed, at Cavalier's option;
>
> D) a 2W HDSL Loop of less than 12k ft. with bridged tap(s) removed, at Cavalier's option;
>
> E) a 4W HDSL Loop of less than 12k ft with bridged tap(s) removed, at Cavalier's option;
>
> F) a 2W Digital Designed Metallic Loop with Verizon-placed ISDN loop extension electronics;

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[231] *See Virginia Arbitration Order*, 17 FCC Rcd at 27230-32, paras. 397-99; *Virginia Cost Issues Order*, 18 FCC Rcd at 17963-64, paras. 615-18. For example, the Bureau found in the *Virginia Cost Issues Arbitration Order* that the availability of an alternative tool for loop qualification, Verizon's Loop Facility Assignment and Control System (LFACS), should make the need for manual loop qualification rare. *Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17963, paras. 615, 617. To the extent the language Verizon has proposed for § 11.2.12.2 does not recognize that Cavalier may use LFACS for loop qualification purposes, this proposed language must be modified.

[232] 47 C.F.R. § 51.807(f)(3); *see also supra* para. 16 n.49. We further note that, to the extent that Cavalier has actual evidence of discriminatory access to loop qualification information, it can file a complaint with the Commission or the Virginia Commission.

G) a 2W SDSL Loop with bridged tap(s) removed, at Cavalier's option;

H) a 2W IDSL Loop of less than 18k ft. with bridged tap(s) removed, at Cavalier's option.

Requests for repeaters for 2W and 4W HDSL Loops with lengths of 12k ft. or more shall be considered pursuant to the Network Element Bona Fide Request process set forth in Exhibit B.

11.2.12.1 – Verizon shall make Digital Designed Loops available to Cavalier at the rates as set forth in Exhibit A.

11.2.12.3 – The Parties will make reasonable efforts to coordinate their respective roles in order to minimize Digital Design Loop provisioning problems. In general, unless and until a shorter period is required under Applicable Law, where conditioning or loop extensions are requested by Cavalier, an interval of eighteen (18) business days will be required by Verizon to complete the loop analysis and the necessary construction work involved in conditioning and/or extending the loop as follows:

A. Three (3) business days will be required following receipt of Cavalier's valid, accurate and pre-qualified service order for a Digital Designed Loop to analyze the loop and related plant records and to create an Engineering Work Order.

B. Upon completion of an Engineering Work Order, Verizon will initiate the construction order to perform the changes/modifications to the Loop requested by Cavalier. Conditioning activities are, in most cases, able to be accomplished within fifteen (15) business days. Unforeseen conditions may add to this interval, unless such additional time is not permitted pursuant to Applicable Law.

C. After the engineering and conditioning tasks have been completed, the standard Loop provisioning and installation process will be initiated, subject to Verizon's standard provisioning intervals.

11.2.12.4 – If Cavalier requires a change in scheduling, it must contact Verizon to issue a supplement to the original service order. If Cavalier cancels the request for conditioning after a loop analysis has been completed but prior to the commencement of construction work, Cavalier shall compensate Verizon for an Engineering Work Order charge as set forth in Exhibit A. If Cavalier cancels the request for conditioning after the loop analysis has been completed and after construction work has started or is complete, Cavalier shall compensate Verizon

for an Engineering Work Order charge as well as the charges associated with the conditioning tasks performed as set forth in Exhibit A.

c. Loops Up To 30,000 Feet in Length

(i) Positions of the Parties

72. Cavalier proposes that Verizon make available to it all xDSL-capable loops up to 30,000 feet in length, including different features than Verizon's standard loop offerings.[233] Cavalier asserts that, although it can order loops from Verizon of the lengths it needs, Verizon's standard loop offerings include features that hinder Cavalier's ability to provide xDSL service, and that its proposed language is less complex.[234] Cavalier further claims that "it has never been offered loops over [18,000 feet] with reasonable loop conditioning rates in the event that load coils or other impediments must be removed."[235]

73. In addition, Cavalier claims that the power spectral density (PSD) mask[236] restrictions associated with Verizon's loop offerings improperly prevent Cavalier from providing its "ReachDSL" service over those loops.[237] With respect to the IDSL, SDSL, and digital designed metallic loop (DDML) loop types, Cavalier claims that Verizon improperly narrows the ways in which a technology can comply with the relevant PSD mask industry standard.[238] Specifically, Cavalier asserts that its service is in compliance with ANSI T1.417, the relevant national standard for PSD masks, which provides two approaches for demonstrating compliance. "Method A" requires a showing that the technology fits within certain predefined "classes" of PSD masks.[239] "Method B" involves a calculation-based approach to demonstrate compliance with the deployment guidelines of the PSD mask standard.[240] Cavalier submitted evidence that the ReachDSL technology satisfies the ANSI T1.417 standard using Method B, but asserts that

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[233] Final Proposed Language at 8 (Cavalier Proposed § 11.2.8(a)).

[234] Cavalier Reply Brief at 13; Cavalier Direct Testimony of Edwards at 2.

[235] Cavalier Reply Brief at 13 n.43.

[236] PSD masks are a tool to help ensure that advanced services technologies can be deployed without causing harmful interference with other deployed loop technologies. PSD masks chart the maximum power and frequency levels that a particular xDSL technology will attain. Knowing these power and frequency levels allows engineers to deploy xDSL technologies in a way that minimizes interference from crosstalk between that xDSL technology and other technologies deployed within the same loop plant. *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, Third Report and Order in CC Docket No. 98-147 and Fourth Report and Order in CC Docket No. 96-98, 14 FCC Rcd 20912, 20991, para. 181 n.390 (1999) (*Line Sharing Order*).

[237] Final Proposed Language at 7-8 (Cavalier Proposed §§ 11.2.4 – 11.2.8(a)).

[238] Cavalier Brief at 32-35; Cavalier Reply Brief at 16-17; Cavalier Rebuttal Testimony of Ko at 1-5.

[239] Cavalier Brief at 32-35; Cavalier Reply Brief at 16-17; Cavalier Rebuttal Testimony of Ko at 2.

[240] Cavalier Brief at 32-35; Cavalier Reply Brief at 16-17; Cavalier Rebuttal Testimony of Ko at 3.

Verizon's proposed language only allows it to use Method A.[241] Cavalier similarly maintains that the PSD mask and DC line power restrictions specified in Verizon technical reference TR 72575, associated with Verizon's ADSL and HDSL loops, limit Cavalier's ability to deploy the technology to offer ReachDSL service.[242]

74. Verizon states that it should not be required to create a new loop offering encompassing all loops up to 30,000 feet.[243] Verizon states that its standard loop offerings, in conjunction with line conditioning, already meet Cavalier's needs.[244] Specifically, Verizon states that it offers loops longer than 18,000 feet in length, which can be conditioned as needed by Cavalier to provide services using ReachDSL technology.[245] Verizon notes that Cavalier's concern about conditioning for loops longer than 18,000 feet was raised by Cavalier and rejected in the *Verizon Virginia Section 271 Order*.[246]

75. Verizon also claims that its proposed language associated with its xDSL-capable loops would not prevent Cavalier from offering ReachDSL service, despite Cavalier's contrary interpretation of that language.[247] Regarding the IDSL, SDSL, and DDML loop types, Verizon acknowledges that either Method A or Method B of demonstrating compliance with the ANSI T1.417 standard is proper, and it offers revised language in an effort to accommodate Cavalier's concerns.[248] Verizon, however, states that it cannot simply adopt that same language for its provisions regarding ADSL and HDSL loops. Verizon maintains that such a change for ADSL and HDSL loops, which are shorter than 18,000 feet, would require significant and needless modifications to its ordering, provisioning, and maintenance systems when its standard loop offerings already meet Cavalier's needs.[249] Specifically, Verizon states that "Verizon's language does not prevent Cavalier from deploying its ReachDSL technology over one of Verizon's numerous, existing under-18,000 foot loop offerings."[250] Independently, at the hearing, Verizon

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[241] Cavalier Brief at 32-35; Cavalier Reply Brief at 16-17; Cavalier Rebuttal Testimony of Ko at Exs. KK-2, KK-3.

[242] Cavalier Brief at 32; Cavalier Rebuttal Testimony of Ko at 4-5; Tr. at 438; *see also* Final Proposed Language at 7-8 (Verizon Proposed §§ 11.2.4 – 11.2.6).

[243] Verizon Reply Brief at 28.

[244] Verizon Brief at 20-22.

[245] *Id.*

[246] *Id.* at 22 (citing *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21964, para. 149).

[247] Verizon Reply Brief at 28.

[248] Tr. at 439-30; Final Proposed Language at 8-9 (Verizon Proposed §§ 11.2.7 – 11.2.8(a)).

[249] Verizon Brief at 21-24; Verizon Reply Brief at 28.

[250] Verizon Reply Brief at 28.

asserted that the issue of loops shorter than 18,000 feet was not properly raised by Cavalier, and thus is not properly before us.[251]

(ii) Discussion

76. We adopt Verizon's provisions, modified to reflect Cavalier's ability to offer its ReachDSL service using those loops.

77. *New Loop Offering For All Loops Up To 30,000 Feet.* We do not adopt Cavalier's proposal for a new loop offering encompassing all loops up to 30,000 feet in length. We find that Verizon's separate loop offerings are adequate to satisfy its obligations under the Act and Commission rules, once Cavalier's concerns regarding PSD mask limits are addressed through changes in the language addressing the specific loop types.[252] Although Cavalier states that it cannot always get access to loops greater than 18,000 feet in length,[253] we note that the Commission reached the opposite conclusion in the *Verizon Virginia Section 271 Order*.[254] Cavalier has not provided a factual or legal basis for this Bureau to reach a different conclusion here. Cavalier presents no evidence that the mere fact that loops need to be conditioned in some circumstances violates section 251 or Commission rules. Further, we observe that Verizon largely has accepted Cavalier's proposed new loop offering for loops longer than 18,000 feet, which we adopt as modified to address PSD mask requirements, as discussed below. This provides Cavalier yet another option for obtaining loops longer than 18,000 feet. To the extent that Cavalier's true concern actually relates to the rates for conditioning these loops,[255] we address that issue below.[256]

78. *Deployment of ReachDSL on IDSL, SDSL, and DDML Loops.* We adopt Verizon's proposed language regarding IDSL, SDSL, and DDML loops, modified as discussed below. Both Parties agree that ANSI T1.417 is the applicable PSD mask standard, and that either

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[251] Tr. at 439-40.

[252] Verizon demonstrates that eliminating the distinctions among its separate loop offerings in favor of the single loop offering proposed by Cavalier would require significant changes to its ordering, provisioning, and maintenance systems. Verizon Brief at 21-24; Verizon Reply Brief at 28. The mere fact that Verizon would incur costs in making such loops available is not in itself sufficient to decline imposing an unbundling obligation if it otherwise is required for compliance with the Act or Commission rules.

[253] Cavalier Rebuttal Testimony of Edwards Rebuttal at 2 ("My understanding is that, in the past, Verizon has refused Cavalier access to xDSL loops over 18,000 feet in length.").

[254] *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21964, para. 149 (responding to Cavalier's claim that it could not get access to loops over 18,000 feet to provide xDSL service by "find[ing] that Verizon's offerings for the provision of DSL-capable loops over 18,000 feet are reasonable.").

[255] Cavalier Reply Brief at 13 n.43 (stating that Cavalier "has never been offered loops over [18,000 feet] with reasonable loop conditioning rates in the event that load coils or other impediments must be removed").

[256] *See infra* Part III.C.6.d.

Method A or Method B may be used to demonstrate compliance.[257] The Parties continue to disagree, however, regarding the specific language that should be used. We find that mirroring the phrasing of Cavalier's reference to a different technical standard in its proposed section 11.2.9 would properly incorporate both methods for demonstrating compliance with the ANSI T1.417 standard, as well as accommodating future modifications to that standard. We thus adopt Verizon's sections 11.2.7, 11.2.8, and 11.2.8(a), modified to replace Verizon's proposed reference to the ANSI T1.417 standard with language adapted from Cavalier's proposed section 11.2.9.[258]

79. *Deployment of ReachDSL on ADSL and HDSL Loops.* We adopt Verizon's proposed language regarding ADSL and HDSL loops, modified to reflect that Cavalier may deploy its ReachDSL technology on those loops. As an initial matter, we reject Verizon's claim that PSD mask issues relating to loops shorter than 18,000 feet – specifically ADSL and HDSL loops – are not properly before us.[259] We find that Cavalier's petition raises the issue of PSD masks as a general matter, without respect to particular loop lengths.[260] As discussed above, we decline to adopt Cavalier's proposed language, which needlessly would require extensive changes to Verizon's systems, when such changes are not necessary to enforce Cavalier's rights under section 251 and the Commission's rules. In particular, Verizon states that its proposed "language does not prevent Cavalier from deploying its ReachDSL technology over one of Verizon's numerous, existing under-18,000 foot loop offerings."[261] Thus, for clarification, we add the sentence "Notwithstanding the foregoing, Cavalier may deploy its ReachDSL technology on such loops." at the end of Verizon's proposed sections 11.2.4, 11.2.5, and 11.2.6.

80. Finally, we note that Cavalier has proposed a change to section 11.2.3 of the Agreement, addressing the "2 Wire ISDN Digital Grade Loop." Specifically, Cavalier proposes to delete the requirement that when Verizon provides loop extension equipment, "[s]uch request will be treated as request for a Digital Designed Loop pursuant to Section 11.2.12."[262] Cavalier provides no discussion or explanation regarding why it proposes this change. In the absence of any explanation, and because Verizon's proposed language is taken from an approved interconnection agreement,[263] we adopt Verizon's proposed section 11.2.3.[264]

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[257] Cavalier Brief at 32-35; Cavalier Reply Brief at 16-17; Verizon Brief at 22-24; Verizon Reply Brief at 26-28.

[258] We note that Cavalier remains obligated to provide Verizon with information regarding the advanced services it intends to offer pursuant to § 51.231 of the Commission's rules. 47 C.F.R. § 51.231.

[259] Tr. at 439-40.

[260] Cavalier Request for Arbitration, Ex. A at 2 (discussing issue C9).

[261] Verizon Reply Brief at 28.

[262] *Compare* Final Proposed Language at 7 (Cavalier Proposed § 11.2.3) *with* Final Proposed Language at 7 (Verizon Proposed § 11.2.3).

[263] Verizon Brief at 19.

(iii) Arbitrator's Adopted Contract Language

81. As discussed above, the Arbitrator adopts the following language:

11.2.3 "2 Wire ISDN Digital Grade Loop" or "BRI ISDN" provides a channel with 2-wire interfaces at each end that is suitable for the transport of 160 kbps digital services using the ISDN 2B1Q line code, as described in ANSI T.1601-1998 and Verizon TR 72575, as revised from time to time. In some cases, loop extension equipment may be necessary to bring the line loss within acceptable levels. Verizon will provide loop extension equipment only upon request. Such request will be treated as request for a Digital Designed Loop pursuant to Section 11.2.12.

11.2.4 "2-Wire ADSL-Compatible Loop" or "ADSL 2W" provides a channel with 2-wire interfaces at each end that is suitable for the transport of digital signals up to 8 Mbps toward the Customer and up to 1 Mbps. from the Customer. In addition, ADSL-Compatible Loops will be available only where existing copper facilities can meet applicable industry standards. The upstream and downstream ADSL power spectral density masks and dc line power limits in Verizon TR 72575, Issue 2, as revised from time to time, must be met. Notwithstanding the foregoing, Cavalier may deploy its ReachDSL technology on such loops.

11.2.5 "2-Wire HDSL-Compatible Loop" or "HDSL 2W" consists of a single 2-wire non-loaded, twisted copper pair that meets the carrier serving area design criteria. The HDSL power spectral density mask and dc line power limits referenced in Verizon TR 72575, Issue 2, as revised from time to time, must be met. HDSL compatible Loops will be available only where existing copper facilities can meet applicable specifications. The 2-wire HDSL-compatible loop is only available in former Bell Atlantic service areas. Notwithstanding the foregoing, Cavalier may deploy its ReachDSL technology on such loops.

11.2.6 "4-Wire HDSL-Compatible Loop" or "HDSL 4W" consists of two 2-wire non-loaded, twisted copper pairs that meet the carrier serving area design criteria. The HDSL power spectral density mask and dc line power limits referenced in Verizon TR 72575, Issue 2, as revised from time to time, must be met. HDSL compatible Loops will be available only where existing copper facilities can meet applicable specifications. Notwithstanding the foregoing, Cavalier may deploy its ReachDSL technology on such loops.

11.2.7 "2-Wire IDSL-Compatible Metallic Loop" consists of a single 2-wire non-loaded, twisted copper pair that meets revised resistance design criteria. This

(Continued from previous page)

[264] Final Proposed Language at 7 (Verizon Proposed § 11.2.3). We note, however, that the adoption of this language does not authorize Verizon to impose any charges prohibited elsewhere in this order. *See infra* Part III.C.6.d.

UNE loop, is intended to be used with very-low band symmetric DSL systems that meet ANSI T1.417, as revised from time to time, and are not compatible with 2B1Q 160 kbps ISDN transport systems. The actual data rate achieved depends upon the performance of Cavalier-provided modems with the electrical characteristics associated with the loop. This loop cannot be provided via UDLC. IDSL-compatible local loops will be provided only where facilities are available and can meet applicable specifications. Verizon will not build new copper facilities.

11.2.8 "2-Wire SDSL-Compatible Loop", is intended to be used with low band symmetric DSL systems that meet ANSI T1.417, as revised from time to time. This UNE loop consists of a single 2-wire non-loaded, twisted copper pair that meets ANSI T1.417, as revised from time to time. The data rate achieved depends on the performance of the Cavalier-provided modems with the electrical characteristics associated with the loop. SDSL-compatible local loops will be provided only where facilities are available and can meet applicable specifications. Verizon will not build new copper facilities.

11.2.8(a) "2-Wire Digital Designed Metallic Loop" 18-30 Kft. provides a channel with 2-wire interfaces at each end, which is intended to be used for digital services beyond 18 Kft. Cavalier may deploy any loop technology that meets ANSI T1.417, as revised from time to time. The average normalized power in any 100 kHz band must not exceed unity and the peak PSD must not exceed that of the Spectrum Management standard template by more than 2.5 dB. The transmit power is limited to 14.0 dBm. This loop may be ordered with load coil removal under the terms and conditions for load coil removal under Digital Designed Loops.

d. Pricing of Loop Qualification and Conditioning

(i) Positions of the Parties

82. Cavalier explains that the Virginia Commission never has set rates for xDSL-related services and that the Parties have been unable to agree on the prices that should apply for the conditioning of xDSL-capable loops.[265] Cavalier specifically challenges Verizon's "standard" proposed charges in Virginia.[266] In light of the Bureau's August 29, 2003 release of the *Virginia Cost Issues Arbitration Order*, Cavalier proposes to adopt the AT&T/WorldCom rates when they become effective, subject to challenge in the normal course of that proceeding and this one.[267] It argues that the prices for loop conditioning in this proceeding should conform to this Bureau's

[265] Cavalier Brief at 35; Cavalier Reply Brief at 18.

[266] *See* Cavalier Brief at 35.

[267] Cavalier Brief at 36. We note that, although AT&T, Cox, and WorldCom were parties to the prior arbitration, Cox did not seek arbitration of rates. *See Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17726, para. 1 n.1.

determination in the *Virginia Cost Issues Arbitration Order* because the Bureau acted there in the stead of the Virginia Commission and set the only such prices ever specifically set for these services in Virginia.[268] In response to Verizon's claim that Cavalier cannot opt into the loop conditioning rates set by this Commission in the Virginia Cost Issues Arbitration without adopting the terms and conditions of the AT&T agreement, Cavalier notes that Verizon does not explain how it believes Cavalier's proposal departs from those terms and conditions.[269]

83. Until the rates set by the Bureau in the Virginia Cost Issues Arbitration become final, Cavalier requests that the Commission adopt the lowest Verizon prices for loop conditioning that exist within the Cavalier footprint, specifically the rates set by the Maryland Commission.[270] Although Verizon argues that a Maryland rate cannot be imported to Virginia, Cavalier argues that position is inconsistent with the way Verizon's own proposed rates were set.[271] Cavalier cites a document produced to it in discovery by Verizon, which traces the source of ten of Verizon's 11 "standard" xDSL loop qualification and conditioning rates in Virginia as "VA Billed," meaning, apparently, that Verizon has charged these rates to a customer under an interconnection agreement in Virginia.[272] Verizon subsequently represented to the Commission that these ten rates are "equal to or lower than [the] comparable rate in NY."[273] Cavalier claims that Verizon, itself, has not demonstrated that these "mystery rates that are equal to or lower than New York rates" are Virginia-specific.[274] In response to Verizon's claim that its proposed rates are TELRIC compliant because they were approved in this Commission's *Verizon Virginia Section 271 Order*, Cavalier notes that Verizon has argued, in a separate proceeding with respect to certain UNE prices, that it would be inappropriate to derive TELRIC assumptions from the record in the Virginia 271 case.[275] Moreover, Cavalier argues, Verizon has not explained why rates that passed muster for purposes of a 271 proceeding are sufficient in the context of a 251-

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[268] Cavalier Brief at 36-37. Cavalier also notes that, to the extent that these prices actually become part of effective agreements between AT&T/WorldCom and Verizon, § 252(i) requires Verizon to make available to Cavalier prices that become part of an effective interconnection agreement between it and AT&T/WorldCom. *Id.* at 36.

[269] Cavalier Reply Brief at 18.

[270] Cavalier Brief at 35, 37. Cavalier argues that cost models and data used by incumbent LECs often are very similar in neighboring states. Cavalier Brief at 35 (citing *Commission Investigation and Generic Proceeding on Ameritech Indiana's Rates for Interconnection, Service, Unbundled Elements, and Transport and Termination under the Telecommunications Act of 1996 and Related Indiana Statutes*, 2003 Ind. PUC LEXIS 116, at *35-*41 (Ind. Util. Reg. Comm'n Feb. 17, 2003)).

[271] *See* Cavalier Reply Brief at 18.

[272] Cavalier Brief at 37 (citing Ex. C9-3 (Verizon Response to Cavalier Discovery Request) at 0861); *see also* Cavalier Reply Brief at 19.

[273] *See* Verizon Brief at Ex. 2; *see also* Tr. at 457-58.

[274] *See* Cavalier Reply Brief at 18.

[275] *Id.* (citing Cavalier Ex. C16-4 (Rebuttal testimony of Robert W. Woltz, Jr. in Virginia SCC Case No. PUC-2002-00088 (filed June 2003)) at 8).

252 arbitration.[276] Although Verizon argues that Cavalier has not provided any cost studies to back up its proposed prices, Cavalier points out the same is true of Verizon.[277]

84. Verizon urges the Commission to reject Cavalier's request that the Bureau adopt the loop conditioning rates set in the *Virginia Cost Issues Arbitration Order*, as inconsistent with section 252(i). According to Verizon, neither section 252(i) nor the Commission's rules permit a party to adopt a rate separate from the accompanying terms and conditions for providing that network element that are contained in the Parties' interconnection agreement.[278] Since Cavalier has requested changes to language in the AT&T agreement, and a carrier must adopt legitimately related terms and conditions of the element associated with a rate in order for the carrier to adopt that rate, Verizon argues, it would be premature for the Bureau to decide whether Cavalier is entitled to AT&T's rates for loop conditioning because it is unclear whether Cavalier will adopt all related terms and conditions.[279]

85. Verizon also opposes Cavalier's request that, until the AT&T/WorldCom rates become effective, the Bureau adopt the lowest Verizon rates approved by a public service commission within Cavalier's footprint, particularly the Maryland loop conditioning rates.[280] Verizon argues that, in the *Verizon Virginia Section 271 Order*, the Commission rejected this exact request, and found that the use of Verizon's Virginia "proxy" rates produced rates within the range that a reasonable application of TELRIC principles would produce.[281] Verizon argues that, since Cavalier has not filed cost studies and rates must be cost based, the Bureau cannot set rates.[282] Verizon also claims that Cavalier has not submitted other evidence to support its contention that Verizon's rates in Virginia are inappropriate, therefore, it argues, the Bureau should adopt the TELRIC-compliant rates it has already approved in the *Verizon Virginia Section 271 Order*, and reject Cavalier's proposals.[283]

(ii) Discussion

86. In accordance with Cavalier's proposal, we adopt the loop qualification and conditioning rates set in accordance with this Bureau's August 29, 2003 *Virginia Cost Issues*

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[276] Cavalier Brief at 37.

[277] Cavalier Brief at 37; Cavalier Reply Brief at 18.

[278] Verizon Reply Brief at 29 (citing 47 U.S.C. § 252(i)).

[279] Verizon Brief at 28 & n.3; Verizon Reply Brief at 29-30 & n. 2 (citations omitted).

[280] *See* Verizon Brief at 27 (citing Tr. at 470).

[281] Verizon Brief at 27 (citing *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21950-52, paras. 124-26, 128); Verizon Reply Brief at 28-29.

[282] Verizon Brief at 27.

[283] *Id.*; Verizon Reply Brief at 29 (citing *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21950-51, paras. 124-26).

Arbitration Order.[284] If final rates have not been approved by the Bureau in that proceeding when the Cavalier-Verizon agreement arbitrated here becomes effective, we direct the Parties to negotiate interim loop qualification and conditioning rates, based upon the rates set forth in AT&T/WorldCom's October 28, 2003 compliance filing in the Virginia Cost Issues Arbitration and Verizon's November 18, 2003 Reply thereto, subject to true-up against the rates the Bureau approves in that proceeding. We find that this solution more likely than either of the Parties' proposals to achieve appropriate, Virginia-specific rates for loop qualification and conditioning.

87. The Parties agree that the rates that Verizon currently charges for loop qualification and conditioning in Virginia were not set by the Virginia Commission. Rather, according to information provided by Verizon to the Bureau, the existing rates were derived from New York rates and are "equal to or lower than" the comparable rates in New York.[285] Although, as we discuss further below, we adopt Cavalier's proposal that loop qualification and conditioning rates be set in accordance with the *Virginia Cost Issues Arbitration Order*, we do not adopt Cavalier's interim proposal. Cavalier stated at the hearing that, if final rates have not been set in the Virginia Cost Issues Arbitration by the effective date of its agreement with Verizon, it requests on an interim basis the rates set by the Maryland commission.[286] The language it proposes in its agreement provides, instead, that certain prices will be set "[a]t the lowest Verizon rate approved by a public service commission within Cavalier's footprint."[287] Cavalier presents no specific information as to what these interim rates are or how they were set. In the absence of any specific information, the Bureau cannot assess whether these proposed interim rates comply with section 252(d) of the Act.[288] Accordingly, we decline to adopt Cavalier's interim proposal.

88. As Verizon argues, in its *Verizon Virginia Section 271 Order*, the Commission found Verizon's current proxy rates to be "within the range that a reasonable application of TELRIC principles would produce."[289] It is well-established, however, that, when the Commission applies TELRIC pricing principles to determine whether an incumbent LEC has complied with section 271, it does not conduct a *de novo* review of a state's pricing

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[284] Cavalier Brief at 35. Although Cavalier's briefs specifically address Verizon's rates for load coil and bridged tap removal, Cavalier's interlineations of the proposed pricing schedule also indicates that it opposes other Verizon rates for loop qualification and conditioning. Verizon was directed to source those rates, *see* Tr. at 466-74, which it did. *See* Verizon Brief at Ex. 2. Based upon these filings, and in accordance with the *Virginia Cost Issues Arbitration Order*, we set the rates that Verizon may charge Cavalier for loop qualification and conditioning.

[285] *See* Verizon Brief at Ex. 2; *see also Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21950, para. 126, *cited in* Verizon Reply Brief at 29.

[286] Tr. at 470.

[287] Final Proposed Language, Ex. A at 4 (Cavalier Proposed Pricing Attachment).

[288] 47 U.S.C. § 252(d).

[289] *See Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21950, para 124, *cited in* Verizon Brief at 27.

determinations.[290] Rather, it makes a general assessment of compliance with TELRIC principles.[291] In the Virginia Cost Issues Arbitration, the Bureau, standing in the stead of the Virginia Commission did apply its pricing rules to resolve numerous specific issues pertaining to the rates that Verizon may charge AT&T and WorldCom in Virginia.[292] In the *Virginia Cost Issues Arbitration Order*, the Bureau applied existing Commission rules, including TELRIC principles, to resolve pricing issues regarding Verizon's Virginia operations.[293] That Order contained a detailed analysis of Verizon's proposed rates for loop qualification and conditioning services in Virginia, including the services at issue here.[294] In the *Virginia Cost Issues Arbitration Order*, the Bureau selected the appropriate cost model for most non-recurring charges related to loop qualification and conditioning services and directed those parties to submit compliance filings for these charges.[295] AT&T/WorldCom made their compliance filing in the Virginia Cost Issues Arbitration on October 28, 2003, and Verizon filed its Reply on November 18, 2003. Both filings contain, *inter alia*, proposed loop qualification and conditioning rates. The compliance filings will be addressed by the Bureau in a forthcoming order.

89. Because the rates set by the Bureau in its recent *Virginia Cost Issues Arbitration Order* determined specific rates that Verizon may charge two competitive LECs in Virginia and considered Verizon's own evidence concerning its Virginia operations, those rates are more appropriate than the either the interim rates that Cavalier advocates or the proxy rates, imported from New York, upon which Verizon relied in its Virginia 271 application and that were found to be generally TELRIC compliant.[296] We reject Verizon's argument that Cavalier must, under section 252(i), also "opt in" to the terms and conditions accompanying the AT&T/WorldCom arbitrated rates, to be entitled to them. Cavalier initiated its own arbitration and asked the Bureau to set loop qualification and conditioning rates. We adopt the rates set in accordance with our earlier order. Cavalier is not "opting in" to the AT&T agreement under section 252(i).

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[290] *Application of Verizon Pennsylvania Inc, Verizon Long Distance, Verizon Enterprise Solutions, Verizon Global Networks Inc., and Verizon Select Services Inc. for Authorization to Provide In-Region InterLATA Services in Pennsylvania,* CC Docket No. 01-138, 16 FCC Rcd 17419, 17453, para. 55 (2001).

[291] *Sprint Communications v. FCC,* 274 F.3d 549, 556 (D.C. Cir. 2001) ("When the Commission adjudicates § 271 applications, it does not – and cannot – conduct *de novo* review of state rate-setting determinations. Instead, it makes a general assessment of compliance with TELRIC principles." (citation omitted)).

[292] *See Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17727, paras. 2-3.

[293] *See id.*

[294] *Compare id.* at 17958-79, paras. 605-661 *with* Final Proposed Language, Ex. A at Part IV (Cavalier Proposed Pricing Attachment); Final Proposed Language, Ex. A at Part IV (Verizon Proposed Pricing Attachment).

[295] *See generally Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17727, paras. 2-3.

[296] In this proceeding Cavalier is seeking to have rates set for services that are identical to services that the Bureau set rates for in the Virginia Cost Issues Arbitration. *Id.* There is no basis for charging different rates to different carriers for identical services. *See Local Competition First Report and Order*, 11 FCC Rcd at 15929, para. 862 ("pricing for interconnection, unbundled elements, and transport and termination of traffic should not vary based on the identity or classification of the interconnector.").

90. Accordingly, we direct the Parties to incorporate the loop qualification and conditioning rates set in accordance with this Bureau's August 29, 2003 *Virginia Cost Issues Arbitration Order* into the Parties' Pricing Schedule, Exhibit A to the Parties' Agreement.[297] We note that our prior order allows Verizon to charge for: (1) Manual Loop Qualification;[298] (2) Engineering Query;[299] (3) Engineering Work Order;[300] (4) Bridged Tap Removal when the combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet;[301] and (5) Load Coil Removal on loops more than 18,000 feet.[302] Verizon may not: (1) charge for Mechanized Loop Qualification;[303] or (2) charge for Cooperative Testing;[304] (3) impose a mandatory charge for WideBand Testing if the competitive LEC does not request it;[305] or (4) impose an ISDN electronics charge.[306] If final rates have not been approved by the Bureau in the Virginia Cost Issues Arbitration by the time Cavalier and Verizon make their compliance filing, the Parties are directed to negotiate interim rates. These interim rates, which shall be subject to true up against the final rates approved by the Bureau in the Virginia Cost Issues Arbitration, shall be based upon AT&T/WorldCom's October 28, 2003 compliance filing and Verizon's November 18, 2003 Reply.

(iii) Arbitrator's Adopted Contract Language

91. As discussed above, the Arbitrator adopts the following language:

EXHIBIT A
VERIZON VIRGINIA INC. and CAVALIER

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[297] As Cavalier proposes, these rates are subject to that proceeding's true-up provision. *See* Cavalier Brief at 36; *see also Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17737, para. 26 (citing *Arbitration Procedures Order*, 16 FCC Rcd at 6233, para. 10).

[298] *See Virginia Cost Issues Arbitration Order*, 18 FCC Rcd at 17964, para. 618.

[299] *See id.*

[300] *See id.* at 17972, 17974, paras. 639, 643.

[301] *See id.* at 17972, 17973-74, paras. 639, 642.

[302] *See id.* at 17972-73, paras. 639-41.

[303] *See id.* at 17963, para. 616.

[304] *See id.* at 17969, para. 632.

[305] *See id.* at 17965-66, para. 622.

[306] *See id.* at 17979, para 660.

DETAILED SCHEDULE OF ITEMIZED CHARGES

Service or Element Description:	Recurring Charges:	Non-Recurring Charges:
Standard Digital Loops	All: No charge / Mechanized Loop Qualification per Loop Provisioned $1.69/Wideband Test Access System (optional)	All: $*/ Manual Loop Qualification per Loop Request $No charge/Cooperative Testing
2 Wire ADSL compatible Loops (up to 12,000 feet)	See rates for 2 Wire ADSL Loops as set forth above	
2 Wire ADSL compatible Loops (up to 18,000 feet)	See rates for 2 Wire ADSL Loops as set forth above	
2 Wire HDSL compatible Loops (up to 12,000 feet)	See rates for 2 Wire HDSL Loops as set forth above	
4 Wire HDSL compatible Loops (up to 12,000 feet)	See rates for 4 Wire HDSL Loops as set forth above	
2 Wire SDSL compatible Loops	See rates for 2 Wire SDSL Loops as set forth above	
2 Wire IDSL compatible Loops (up to 18,000 feet)	See rates for 2 Wire IDSL Loops as set forth above	
Digital Designed Loops 2 Wire ADSL compatible Loop (up to 12,000 feet) with Bridged Tap removal	See rates for 2 Wire ADSL Loops as set forth above	Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $* Engineering Query: $*

		Engineering Work Order Charge: $*
2 Wire ADSL compatible Loop (up to 18,000 feet) with Bridged Tap removal	See rates for 2 Wire ADSL Loops as set forth above	
		Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $*
		Engineering Query: $*
		Engineering Work Order Charge: $*
2 Wire Digital Designed Metallic Loop (up to 30,000 Feet) Non-loaded with Bridged Tap options	See rates for 2 Wire ADSL and 2 Wire HDSL Loops as set forth above	
		Required Removal of Load Coils on Loops over 18,000 feet $*
		Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $*
		Engineering Query: $*
		Engineering Work Order Charge: $*
2 Wire Digital Designed Metallic Loop with ISDN Loop Extension Electronics	See rates for 2 Wire ISDN Loops as set forth above	
		Required Removal of Load Coils on Loops over 18,000 feet $*

	Addition of Range Electronics: No charge Engineering Query: $* Engineering Work Order Charge: $*
2 Wire HDSL compatible Loops (up to 12,000 feet) with Bridged Tap removal	See rates for 2 Wire HDSL Loops as set forth above
	Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $* Engineering Query: $* Engineering Work Order Charge: $*
4 Wire HDSL compatible Loops (up to 12,000 feet) with Bridged Tap removal	See rates for 4 Wire HDSL Loops as set forth above
	Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $* Engineering Query: $* Engineering Work Order Charge: $*
2 Wire SDSL compatible Loops with Bridged Tap removal	See rates for 2 Wire SDSL Loops as set forth above
	Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $*

	Engineering Query: $* Engineering Work Order Charge: $*
2 Wire IDSL compatible Loops (up to 18,000 feet) with Bridged Tap removal	See rates for 2 Wire IDSL Loops as set forth above
	Removal of Bridged Taps when combined length of all taps does not exceed 2,500 feet, with no single tap longer than 2,000 feet: $* Engineering Query: $* Engineering Work Order Charge: $*

* To be replaced with final rate set by the FCC in CC Docket Nos. 00-218, 00-249, and 00-251, including true-up pursuant to ¶ 10 of the FCC's January 17, 2001 Order, FCC 01-21, 16 FCC Rcd (rel. Jan. 19, 2001).

e. Maintenance and Repair Interval

(i) Positions of the Parties

92. Cavalier proposes language that would require Verizon to respond to all maintenance and repair requests for xDSL-capable loops in the same time interval as it does for DS1 loops.[307] Cavalier asserts that this shorter interval is necessary because its xDSL customers use those loops in a way similar to how T1 circuits are used.[308] While acknowledging that Verizon does not provide maintenance and repair within Cavalier's requested intervals for other competitive LECs, or even Verizon retail customers, Cavalier states that those customers "would also benefit from such an interval."[309]

93. Verizon responds that its maintenance and repair intervals for xDSL-capable loops are the same as those for POTS.[310] It makes no sense, according to Verizon, to adopt the

[307] Final Proposed Language at 9-10 (Cavalier Proposed § 11.2.12(C)).

[308] Cavalier Brief at 30.

[309] *Id.*

[310] Verizon Brief at 29.

same intervals for a predominantly business service (DS1) as for a predominantly residential service (xDSL).[311] Verizon asserts that maintenance and repair intervals should be based on the nature of the particular product, and not the way in which customers use that product.[312] Verizon notes that its current maintenance and repair intervals have been adopted in Virginia for purposes of the Carrier-to-Carrier Guidelines, and it expresses concern about its ability to administer a system that required different intervals for different carriers.[313] Further, Verizon states that Cavalier's proposal would result in Cavalier customers receiving superior service to Verizon's own retail customers.[314]

(ii) Discussion

94. We reject Cavalier's proposed new language. Cavalier has not demonstrated – or even claimed – that Verizon must provide maintenance and repair of xDSL-capable loops within the shorter intervals Cavalier seeks in order to provide nondiscriminatory access to loops or to comply with section 251.[315] Consequently, we reject Cavalier's proposal. We note that collaboratives regarding the performance measures established under the Virginia Carrier-to-Carrier Guidelines are ongoing in Virginia,[316] which are the appropriate fora for this issue. If Cavalier wishes a shorter interval for maintenance and repair of xDSL-capable loops, it should raise its proposal in that forum.

(iii) Arbitrator's Adopted Contract Language

95. As discussed above, the Arbitrator does not adopt any language with respect to this aspect of issue C9.

f. 4-Wire DS1 Loops

(i) Positions of the Parties

96. Cavalier states that when it orders "4-wire DS1-compatible loops," Verizon occasionally provides 2-wire HDSL DS1 loops with 4-wire interfaces at each end.[317] Cavalier

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311 *Id.* at 29-30; Verizon Rebuttal Testimony of Albert Panel at 8.

312 Verizon Reply Brief at 24.

313 Verizon Brief at 29.

314 *Id.* at 29.

315 *See, e.g.*, Cavalier Brief at 30 ("Cavalier's customers need an improved service interval for xDSL loops comparable to that for T1 circuits, and Cavalier suspects that customers of other CLECs or Verizon would also benefit from such an interval.").

316 Verizon Reply Brief at 24; Tr. at 453-54.

317 Cavalier Brief at 31-32.

states that its customers frequently experience performance problems with those loops.[318] Thus, Cavalier proposes language to require Verizon to provide loops with four wires end-to-end when Cavalier orders 4-wire DS1-compatible loops, rather than substituting 2-wire HDSL DS1s with 4-wire interfaces.[319] Cavalier states that ordering a 4-wire HDSL loop is not a desirable alternative because of lengthier maintenance and repair intervals associated with those loops.[320]

97. Verizon responds that, in some cases where Cavalier has ordered a 4-wire DS1-compatible loop, the deployed network configuration and technology does not allow for the provisioning of an end-to-end 4-wire DS1 loop without the addition of new electronics.[321] In those instances, Verizon substitutes a 2-wire HDSL DS1 loop with 4-wire interfaces, just as it would do for its own retail customer ordering a comparable product.[322] Verizon states that this network condition is not ascertainable until its employees are in the field actually seeking to provision the loop.[323] To provide an end-to-end 4-wire DS1 loop in those instances would require it to construct facilities, which is not required by the Act.[324] Verizon further notes that Cavalier has other options for providing DS1 service, including a 4-wire HDSL loop offerings, if Cavalier finds Verizon's 4-wire DS1-compatible loop offering inadequate.[325] Verizon explains that, in order to comply with Cavalier's proposed language, it would be required to construct new facilities in some instances, which is beyond what is required by the Act.[326]

(ii) Discussion

98. We adopt Verizon's language, modified as discussed below, because Cavalier's language would impose obligations beyond what is required by the Act or Commission rules. Verizon demonstrates that it only substitutes 2-wire HDSL DS1s with 4-wire interfaces when it is unable to provision an end-to-end 4-wire DS1 loop due to the existing network configuration and technology. Thus, because Verizon does not do so for its own retail customers at this time, Verizon's refusal to install new electronics to enable it to provide Cavalier an end-to-end 4-wire loop is consistent with the Commission's rules in this context.[327] Under the Commission's rules,

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[318] *Id.* at 30-32.

[319] Final Proposed Language at 8-9 (Cavalier Proposed § 11.2.9).

[320] Cavalier Brief at 31.

[321] Verizon Reply Brief at 25; Tr. at 433. Thus, Cavalier mischaracterizes Verizon's position when it asserts that Verizon seeks the right to substitute 2-wire facilities "for no specific reason." Cavalier Brief at 32.

[322] Verizon Reply Brief at 25; Tr. at 434.

[323] Verizon Reply Brief at 25; Tr. at 430-31.

[324] Verizon Reply Brief at 26.

[325] Verizon Brief at 26-27; Verizon Rebuttal Testimony of Albert Panel at 9.

[326] Verizon Reply Brief at 26.

[327] Thus, we need not reach the parties' claims regarding the substitutability of 4-wire HDSL loops when a 4-wire end-to-end loop is desired. *See* Verizon Brief at 26-27; Cavalier Brief at 31.

Verizon need only perform network modifications if it routinely does so to serve its own customers.[328] Verizon states that, rather than installing new electronics, it makes the same substitution of a 2-wire HDSL DS1 loop with 4-wire interfaces to serve its own customers.[329] For clarity, however, we insert the phrase "unless Verizon routinely does so to serve its own customers" at the end of the sentence "Verizon will not install new electronics" in section 11.2.9.

(iii) Arbitrator's Adopted Contract Language

99. As discussed above, the Arbitrator adopts the following language:

> 11.2.9 "DS-1 Loops" provides a digital transmission channel suitable for the transport of 1.544 Mbps digital signals. This Loop type is more fully described in Verizon TR 72575, as revised from time to time. The DS-1 Loop includes the electronics necessary to provide the DS-1 transmission rate. A DS-1 Loop will be provided only where the electronics necessary to provide the DS-1 transmission rate are at the requested installation date currently available for the requested DS-1 Loop. Verizon will not install new electronics unless Verizon routinely does so to serve its own customers. If the electronics necessary to provide Clear Channel (B8ZS) signaling are at the requested installation date currently available for a requested DS-1 Loop, upon request by Cavalier, the DS-1 Loop will be furnished with Clear Channel (8ZS) signaling, Verizon will not install new electronics to furnish Clear Channel (B8ZS) signaling. Notwithstanding any other provision of this Agreement, Verizon will provide DS-1 Loops consistent with, but only to the extent required by any applicable order or decision of the FCC or the Commission.

7. Issue C10 (Dark Fiber)

a. Introduction

100. The Parties disagree about operational and informational issues associated with determining the location and availability of dark fiber. Dark fiber is "unused fiber within an existing fiber optic cable that has not yet been activated through optronics to render it capable of carrying communications services."[330] Users of dark fiber loops and dark fiber interoffice facilities "provide the electronic equipment necessary to activate the dark fiber strands to provide services."[331] Cavalier proposes to expand the information Verizon provides in response to dark

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[328] 47 C.F.R. § 51.319(a)(8); *Triennial Review Order*, 18 FCC Rcd at 17371-78, paras. 632-41.

[329] Should Verizon's practices with respect to provisioning 4-wire DS1-compatible loops to its retail customers change, however, such that it routinely installs new electronics in such circumstances where the existing deployed network does not otherwise enable it, we would expect Verizon to do so for Cavalier, as well. *Id.*

[330] *Triennial Review Order*, 18 FCC Rcd at 17164-65, para. 311.

[331] *Id.*

fiber inquiries, particularly when dark fiber is reported as unavailable.[332] To help ensure the accuracy of the information it receives, Cavalier further requests changes to the dark fiber field survey process to enable Cavalier employees to attend the surveys and to limit the cost of the surveys.[333] In addition, Cavalier seeks to establish a queue for its dark fiber inquiries, giving Cavalier priority access to dark fiber on requested routes as it becomes available.[334] Verizon states that these additional procedures and processes are burdensome and unnecessary, particularly given its willingness to search for alternative routes through intermediate offices in order to fill Cavalier's dark fiber requests.[335]

b. Dark Fiber Inquiries

(i) Positions of the Parties

101. Cavalier seeks a variety of additional information about the availability of dark fiber in Virginia. Under Cavalier's proposal, Verizon would respond to dark fiber inquiries by indicating whether dark fiber is "(i) installed and available, (ii) installed but not available, or (iii) not installed."[336] Cavalier asserts that this would formalize a process similar to Verizon's current practice.[337] After a response that dark fiber is not available, Verizon would be required to explain why dark fiber is not available, including whether splicing or other work needs to be performed, or whether no fiber at all is present between the points specified by Cavalier.[338] In addition, when fiber is installed, regardless of availability, Verizon would be required to inform Cavalier of the locations of all "pedestals, vaults, [and] other intermediate points of connection," and which portions have available fiber.[339] Cavalier claims that it needs this additional information to guide its decision whether to continue pursuing dark fiber along particular routes or to particular locations, and to help resolve disputes regarding the availability of dark fiber.[340]

102. Verizon responds that additional information is not needed to resolve uncertainty about the availability of dark fiber, and that it never has provided the information sought by Cavalier in response to dark fiber inquiries.[341] According to Verizon, in the absence of evidence

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[332] Final Proposed Language at 15-17 (Cavalier Proposed § 11.2.15.4).

[333] *Id.* at 17-18 (Cavalier Proposed § 11.2.15.5(ii)).

[334] *Id.* at 17 (Cavalier Proposed § 11.2.15.4.1).

[335] Verizon Brief at 30-37.

[336] Final Proposed Language at 15-17 (Cavalier Proposed § 11.2.15.4).

[337] Cavalier Brief at 45; Cavalier Direct Testimony of Ashenden at 2.

[338] Final Proposed Language at 15-17 (Cavalier Proposed § 11.2.15.4).

[339] *Id.*

[340] Cavalier Brief at 45-46.

[341] Verizon Brief at 37.

of discrimination, there is no need for changes to its dark fiber processes.[342] Verizon claims that Cavalier's proposal simply would impose expensive new obligations on Verizon without good reason.[343] For example, Verizon asserts that information regarding whether "fiber is present but needs to be spliced" is unnecessary, because Cavalier is not entitled to access dark fiber at splice points.[344] Verizon likewise states that the information it provides in response to dark fiber inquiries has been held to be sufficient in other Commission proceedings.[345] Verizon also asserts that Cavalier should request a field survey if it seeks additional information about a dark fiber inquiry.[346] Moreover, Verizon notes that it already searches for alternative routes to meet Cavalier's requests for dark fiber, rendering the detailed information sought by Cavalier unnecessary.[347] Verizon also states that the cost of providing the information sought by Cavalier is not included in its rates.[348]

(ii) Discussion

103. Section 51.307(e) of the Commission's rules requires incumbent LECs to "provide to a requesting telecommunications carrier technical information about the incumbent LEC's network facilities sufficient to allow the requesting carrier to achieve access to unbundled network elements consistent with the requirements of this section."[349] We adopt Cavalier's proposed section 11.2.15.4, modified as discussed below, to require Verizon to provide additional information in response to dark fiber inquiries, pursuant to this rule. We agree with Cavalier that much of the technical information about Verizon's network that it seeks in response to dark fiber inquiries is needed for Cavalier to have meaningful and nondiscriminatory access to unbundled dark fiber. We find persuasive Cavalier's claim that it needs additional information as a basis for its decision whether to continue pursuing dark fiber along particular routes or to particular locations, and to help resolve disputes regarding the availability of dark fiber.[350]

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[342] Verizon Reply Brief at 31.

[343] Verizon Brief at 36.

[344] *Id.*

[345] *Id.* at 36-37 (citing *Verizon Virginia Section 271 Order*, 17 FCC Rcd at 21960-62, paras. 145-47; *Application by Verizon Maryland Inc., Verizon Washington, D.C. Inc., Verizon West Virginia Inc., Bell Atlantic Communications, Inc. (d/b/a Verizon Long Distance), NYNEX Long Distance Company (d/b/a Verizon Enterprise Solutions), Verizon Global Networks Inc., and Verizon Select Services Inc., for Authorization to Provide In-Region, InterLATA Services in Maryland, Washington, D.C., and West Virginia*, Memorandum Opinion and Order, WC Docket No. 02-384, 18 FCC Rcd 5212, 5286-87, paras. 123-26 (2003)).

[346] Verizon Reply Brief at 35-36.

[347] Verizon Brief at 33; Verizon Direct Testimony of Albert Panel at 24; Final Proposed Language at 15-16 (Verizon Proposed § 11.2.15.4).

[348] Verizon Brief at 37.

[349] 47 C.F.R. § 51.307(e).

[350] Cavalier Brief at 45-46.

Verizon concedes that the availability of dark fiber has been a subject of dispute both between Cavalier and Verizon specifically, and among other carriers more generally.[351] Further, as Cavalier states, a response that merely indicates that fiber is or is not available is "too nebulous to [Cavalier] to know whether that means the fiber between point A and point B doesn't exist, has never been put in the ground, or whether there is fiber available between the two points and maybe some capacity will become available in the distant future."[352]

104. We also find that additional information sought by Cavalier is needed to ensure access to unbundled dark fiber consistent with the Commission's rules regarding routine network modifications. The Commission's rules require incumbent LECs to "make all routine network modifications" to unbundled loops or transport facilities.[353] The *Triennial Review Order* provides that "[t]he requirement we establish for incumbent LECs to modify their networks on a nondiscriminatory basis is not limited to copper loops, but applies to all transmission facilities, including dark fiber facilities."[354] We find that requiring Verizon to provide Cavalier an explanation of why dark fiber is not available in response to dark fiber inquiries will allow Cavalier a meaningful opportunity to enforce its right to routine network modifications to unbundled dark fiber. Although Verizon asserts that it should not have to provide additional information in response to a dark fiber inquiry when Cavalier instead could request a field survey, we note that, to provide the more limited information we require here, Verizon need not conduct a full field survey by dispatching technicians to the field to acquire new information, but rather need only provide the information already in its records. To the extent that Cavalier requires still further information, it then may seek a field survey, if it so chooses.

105. We reject Verizon's claim that Cavalier does not need information about whether fiber needs to be spliced. Providing Cavalier access to information regarding the need for dark fiber to be spliced allows Cavalier to enforce its right to routine network modifications. Verizon must splice dark fiber to make it available to Cavalier on an unbundled basis to the extent required by the Commission's routine network modification rules. Although Verizon is correct that Cavalier is not entitled to access dark fiber at splice points, Verizon must perform routine network modifications to dark fiber sought by Cavalier, including "rearranging or splicing cable."[355] The *Triennial Review Order* states that this obligation requires incumbent LECs to

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[351] Tr. at 245-46.

[352] *Id.* at 255.

[353] 47 C.F.R. §§ 51.309(a)(8)(i), (e)(5)(i).

[354] *Triennial Review Order*, 18 FCC Rcd at 17375, para. 638.

[355] 47 C.F.R. §§ 51.309(a)(8)(ii), (e)(5)(ii). In light of these newly-adopted rules, Cavalier's need for information thus differs from what it would have needed solely under the *Virginia Arbitration Order*, contrary to Verizon's claims. Verizon Reply Brief at 30. In that *Order*, we held that competitive LECs do not have the right to access dark fiber at splice points, and Verizon is never required to splice new dark fiber routes or add electronics to make available dark fiber. *Virginia Arbitration Order*, 17 FCC Rcd at 27260-61, 27263-64, 27269-70, paras. 451, 457, 467. While competitive LECs still do not have the right to access dark fiber at splice points, the routine network modification rules give them the right to have dark fiber spliced, or electronics added, to the extent that such (continued....)

"make the same routine modifications to their existing dark fiber facilities for competitors as they make for their own customers – including work done on dark fiber to provision lit capacity to end users."[356] As a result, to the extent that Verizon would splice cable in order to provide a lit service to a retail customer, it likewise must do so at any point throughout its network to provide dark fiber to Cavalier. According to testimony, Verizon routinely splices fiber for purposes of providing service to retail customers.[357] Although language not disputed by the Parties states that "Verizon shall not be required to perform splicing to provide fiber continuity between two locations," it goes on to state that "Notwithstanding anything else set forth in this Agreement, Verizon shall provide Cavalier with access to Dark Fiber Loops and Dark Fiber IOF in accordance with, but only to the extent required by, Applicable Law."[358] We thus direct the Parties to strike the sentence "Verizon shall not be required to perform splicing to provide fiber continuity between two locations" to eliminate ambiguity regarding Verizon's obligation with respect to splicing pursuant to the Commission's routine network modifications rules as it is addressed in section 11.2.15.1 of the Agreement.[359]

106. As noted in the *Triennial Review Order*, "[a]lthough the record before us does not support the enumeration of these activities in the same detail as we do for lit DS1 loops, we encourage state commissions to identify and require such modifications to ensure nondiscriminatory access."[360] Similarly, the record here does not allow us to identify other modifications, beyond splicing, which would constitute "routine network modifications" that must be performed by Verizon. However, we encourage the Virginia Commission to undertake a proceeding "to make dark fiber meaningfully available" as other states have done.[361]

107. For these reasons, we find that Cavalier is entitled to information about "whether fiber is: (i) installed and available, (ii) installed but not available, or (iii) not installed," as well as a description "in reasonable detail the reason why fiber is not available, including, but not limited to, specifying whether fiber is present but needs to be spliced, whether no fiber at all is present between the two points specified by Cavalier, whether further work other than splicing needs to be performed, and the nature of any such further work other than splicing," when a request for dark fiber is denied.[362]

(Continued from previous page)
activities fall within the scope of those rules. 47 C.F.R. §§ 51.309(a)(8)(ii), (e)(5)(ii). As we discuss below, the record in this proceeding is inadequate to fully enumerate what such activities include.

[356] *Triennial Review Order*, 18 FCC Rcd at 17375, para. 638.

[357] Tr. at 267-75.

[358] Aug. 1 Draft Agreement § 11.2.15.1.

[359] Aug. 1 Draft Agreement § 11.2.15.1.

[360] *Triennial Review Order*, 18 FCC Rcd at 17375, para. 638.

[361] *See, e.g., id.* at 17216-17, para. 385.

[362] Final Proposed Language at 15-17 (Cavalier Proposed § 11.2.15.4).

108. We reject Verizon's claim that the dark fiber information it provides is adequate because it was accepted for purposes of prior section 271 proceedings.[363] The section 271 proceedings utilized were completed prior to the effective date of the *Triennial Review Order*. Thus, the Commission's rules regarding the availability of unbundled dark fiber generally, and with respect to routine network modifications specifically, have changed since Verizon's section 271 approvals were granted.[364] We find that, as discussed above, additional information is required for Cavalier to enforce its rights under rules that were not in place at the time of those prior proceedings.

109. We do not adopt Cavalier's proposed language seeking information about "pedestals, vaults, other intermediate points of connection." To the extent that that information is needed to explain why a request for dark fiber is denied, Verizon is required to provide that explanation pursuant to other language in this provision. Cavalier is not entitled to access to dark fiber at intermediate points of connection, nor has it otherwise explained why this specific information is needed. We therefore decline to adopt that language from Cavalier's proposed section 11.2.15.4.

110. We also do not adopt the last sentence of Cavalier's proposed section 11.2.15.4, which states: "This provision is intended to reduce uncertainty about whether or not dark fiber is 'terminated' or not.'" As Cavalier itself concedes, this is not the sole purpose of the provision.[365] Therefore, deleting that sentence will avoid confusion regarding the scope of the provision.

111. We also reject Verizon's claim that the information requirements should not be adopted because their cost is not included in its current rates.[366] Verizon has submitted no evidence that the information needed to respond to Cavalier would not readily be available, nor has it provided any evidence regarding the costs it would incur to respond. Further, as discussed above, Verizon need only provide the information already in its records. Moreover, the pricing of the dark fiber inquiry process was not properly raised, having not been addressed in either Cavalier's petition[367] or Verizon's reply,[368] and thus we do not address it here. We thus adopt Cavalier's proposed section 11.2.15.4, modified as discussed above.

(iii) Arbitrator's Adopted Contract Language

112. As discussed above, the Arbitrator adopts the following language:

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[363] Verizon Brief at 36-37.

[364] *See generally Triennial Review Order*, 18 FCC Rcd at 17164-67, 17213-17, 17371-78, paras. 311-14, 381-85, 632-41; 47 C.F.R. §§ 51.309(a)(6), (a)(8)(i), (e)(3), (e)(5)(i).

[365] Cavalier Direct Testimony of Ashenden at 2.

[366] Verizon Brief at 37.

[367] *See generally* Cavalier Petition.

[368] *See generally* Verizon Answer/Response.

11.2.15.4 – A Dark Fiber Inquiry Form must be submitted prior to submitting an ASR. Upon receipt of Cavalier's completed Dark Fiber Inquiry Form, Verizon will initiate a review of its cable records to determine whether Dark Fiber Loop(s) or Dark Fiber IOF may be available between the locations and in the quantities specified. Verizon will respond within fifteen (15) Business Days from receipt of the Cavalier's Dark Fiber Inquiry Form, indicating whether Dark Fiber Loop(s) or Dark Fiber IOF may be available (if so available, an "Acknowledgement") based on the records search except that for ten (10) or more requests per LATA or large, complex projects, Verizon reserves the right to negotiate a different interval. The Dark Fiber Inquiry is a record search and does not guarantee the availability of Dark Fiber Loop(s) or Dark Fiber IOF. Where a direct Dark Fiber IOF route is not available, Verizon will provide, where available, Dark Fiber IOF via a reasonable indirect route that passes through intermediate Verizon Central Offices at the rates set forth in Exhibit A. Any limitations on the number of intermediate Verizon Central Offices will be discussed with Cavalier. If access to Dark Fiber IOF is not available, Verizon will notify Cavalier, within fifteen (15) Business Days, that no spare Dark Fiber IOF is available over the direct route nor any reasonable alternate indirect route, except that for voluminous requests or large, complex projects, Verizon reserves the right to negotiate a different interval. Where no available route was found during the record review, Verizon will identify the first blocked segment on each alternate indirect route and which segment(s) in the alternate indirect route are available prior to encountering a blockage on that route, at the rates set forth in Exhibit A. In responding to Dark Fiber Inquiries from Cavalier, Verizon will identify whether fiber is: (i) installed and available, (ii) installed but not available, or (iii) not installed. Where fiber is not available, Verizon shall describe in reasonable detail the reason why fiber is not available, including, but not limited to, specifying whether fiber is present but needs to be spliced, whether no fiber at all is present between the two points specified by Cavalier, whether further work other than splicing needs to be performed, and the nature of any such further work other than splicing. Use of information provided by Verizon pursuant to this provision shall be limited to Cavalier's engineering and operations personnel. Cavalier's marketing personnel shall not be permitted access to, or use of, this information.

c. Field Survey

(i) Positions of the Parties

113. Cavalier states that, in the past, the surveys performed by Verizon to verify the availability of dark fiber yielded different results than Verizon's original records, resulting in disagreements between Cavalier and Verizon regarding dark fiber access.[369] Thus, Cavalier proposes that its employees would accompany the Verizon employees conducting the field

[369] Cavalier Brief at 42-43 & Exs. C10-3, C10-5.

survey.[370] Cavalier asserts that this would allow it to verify Verizon's determinations regarding dark fiber availability, and to pose questions about the particular dark fiber at issue.[371] Joint dark fiber field surveys would be no more difficult than the vendor meets that Verizon conducts for DS0 circuits, Cavalier claims, and would be a substantial improvement over the burdensome process that has sometimes resulted when the Parties disagree about the results of a field survey conducted solely by Verizon.[372]

114. According to Cavalier, the uncertain cost of a field survey also is a deterrent to its use of the process.[373] Thus, Cavalier proposes language placing limits on what it could be charged for the field survey.[374] Specifically, Verizon would provide an up-front budget estimate, and could only charge Cavalier beyond that amount for unforeseeable expenses that arose in conducting the field survey.[375]

115. Cavalier also proposes that the Parties negotiate a separate means of resolving dark fiber disputes.[376] Cavalier claims that in situations such as disagreements between Verizon's records and the results of a field survey, the Agreement should provide an opportunity for further discussion to help resolve disputes.[377] Cavalier, however, asserts that while it "seeks both a joint field survey and a dispute resolution mechanism," at a minimum we should "at least award Cavalier one or the other."[378]

116. Verizon maintains that the need to coordinate with Cavalier employees to schedule and conduct the field survey would add significant complexity and bureaucracy to the process, and limit Verizon's ability to schedule the remainder of its work efficiently.[379] Further, Verizon states that the employees that conduct the field survey likely would not be able to answer many of the questions that Cavalier would likely pose.[380] These requirements, Verizon claims, would actually add cost and uncertainty to the field survey process.[381] Verizon asserts that the

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370 Final Proposed Language at 17-18 (Cavalier Proposed § 11.2.15.5(ii)).

371 Cavalier Direct Testimony of Ashenden at 4.

372 Cavalier Brief at 41-44; Cavalier Direct Testimony of Ashenden at 4.

373 Cavalier Direct Testimony of Ashenden at 3-4.

374 Final Proposed Language at 17-18 (Cavalier Proposed § 11.2.15.5(ii)).

375 *Id.*

376 *Id.*

377 Cavalier Brief at 43-44.

378 Cavalier Reply Brief at 21.

379 Verizon Brief at 34; Verizon Direct Testimony of Albert Panel at 21.

380 Verizon Rebuttal Testimony of Albert Panel at 13.

381 *Id.*

field survey disputes cited by Cavalier do not demonstrate problems with Verizon's existing process, which has been revised since they occurred.[382] Verizon also asserts that Cavalier has not demonstrated that the Agreement's general dispute resolution process would be inadequate for addressing dark fiber disputes.[383]

(ii) Discussion

117. We adopt Verizon's proposed section 11.2.15.5(ii), modified to allow Cavalier personnel to attend the field surveys. As an initial matter, we reject Cavalier's proposed language that would limit its obligation to pay the full costs of the field survey.[384] We dealt with this issue squarely in the prior *Virginia Arbitration Order*, and found that when a competitor requests "a field survey to confirm the viability of a fiber path, it is reasonable for [the competitor] to bear the expense of that survey, regardless of the result, just as Verizon must do when it performs such surveys for itself."[385] Indeed, to the extent that Cavalier personnel are able to attend the field survey, Cavalier does not object to paying its cost.[386] We thus apply our prior holding that it is reasonable for the competitive LEC bear the cost of the field survey.

118. Given that Cavalier is paying the cost of the field survey, however, we find it reasonable for Cavalier to have the option of having its personnel accompany Verizon personnel when the field survey is conducted. Verizon notes that the employees it sends to conduct the field surveys may not be able to answer all of Cavalier's questions.[387] We find, however, that Cavalier should have the option to choose whether to observe the field survey for which it is paying, notwithstanding the fact that all its questions may not be answered by the Verizon personnel conducting the field survey. We agree with Cavalier that this could help resolve some uncertainty regarding the availability of dark fiber that can remain in some cases even after the completion of a field survey.[388] As noted above, Cavalier also states that this would help allay its concern about the cost of the field survey process. We reject Verizon's concern that its need to coordinate with Cavalier will create significant administrative burdens.[389] Under this provision,

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382 Verizon Reply Brief at 34.

383 Verizon Brief at 35.

384 Final Proposed Language at 17-18 (Cavalier Proposed § 11.2.15.5(ii)).

385 *Verizon Arbitration Order*, 17 FCC Rcd at 27271, para. 471.

386 Tr. at 277.

387 Verizon Brief at 34-35.

388 We thus reject Verizon's assertion that Cavalier's cited problems with delay and uncertain results from prior field surveys are inadequate to justify changes to Verizon's current field survey process, which was revised following the *Virginia Arbitration Order*, and accepted for purposes of demonstrating checklist compliance in the *Verizon Virginia Section 271 Order*. Verizon Reply Brief at 34. Verizon has not demonstrated how the changes to its process would have resolved the concerns raised by Cavalier, nor has it shown that Cavalier's precise concerns were raised and rejected in the *Verizon Virginia Section 271 Order*.

389 Verizon Brief at 34.

Verizon need not modify the schedule it ordinarily would employ when conducting a field survey, but must inform Cavalier of that schedule and allow Cavalier to send its employees to observe the field survey pursuant to that schedule.

119. We do not adopt Cavalier's proposed language that would require the Parties to negotiate a new means of dispute resolution specific to dark fiber disputes.[390] As Verizon notes, the Agreement already contains a provision providing for the resolution of disputes related to the Agreement, including dark fiber disputes.[391] Cavalier has not provided any evidence why this existing mechanism is inadequate in the case of dark fiber disputes. Thus, we reject Cavalier's proposal to establish a dark fiber dispute resolution mechanism as duplicative and unnecessary.

120. Although we grant Cavalier's request to allow it to participate in field surveys, because we do not adopt Cavalier's proposed cost limitations and new dispute resolution process, we find that Verizon's proposed section 11.2.15.5(ii) provides a better starting point.[392] We thus modify Verizon's proposed section 11.2.15.5(ii) by adding the sentence "At Cavalier's option, its personnel may observe the conducting of the field survey." before the sentence "Verizon shall perform a field survey subject to a negotiated interval." Observation by Cavalier includes the right to ask questions, although we recognize that the Verizon personnel conducting the field survey may not always have the information needed to answer Cavalier's questions.

(iii) Arbitrator's Adopted Contract Language

121. As discussed above, the Arbitrator adopts the following language:

> (ii) A field survey that shows the availability of dark fiber pairs between two or more Verizon central offices, a Verizon central office and a Cavalier central office or a Verizon end office and the premises of a Customer, shows whether or not such pairs are defective, shows whether or not such pairs have been used by Verizon for emergency restoration activity and tests the transmission characteristics of Verizon dark fiber pairs. If a field survey shows that a Dark Fiber Loop or Dark Fiber IOF is available, Cavalier may reserve the Dark Fiber Loop or Dark Fiber IOF, as applicable, for ten (10) Business Days from receipt of Verizon's field survey results. If Cavalier submits an order for access to such Dark Fiber Loop or Dark Fiber IOF after passage of the foregoing ten (10) Business Day reservation period, Verizon does not guarantee or warrant the Dark Fiber Loop or Dark Fiber IOF will be available when Verizon receives such order, and Cavalier assumes all risk that the Dark Fiber Loop or Dark Fiber

[390] Final Proposed Language at 17-18 (Cavalier Proposed § 11.2.15.5(ii)).

[391] Verizon Brief at 35; Aug. 1 Draft Agreement § 28.11.

[392] Final Proposed Language at 17 (Verizon Proposed § 11.2.15.5(ii)).

IOF will not be available. At Cavalier's option, its personnel may observe the conducting of the field survey. Verizon shall perform a field survey subject to a negotiated interval. If Cavalier submits an order for a dark fiber pair without first obtaining the results of a field survey of such pair, Cavalier assumes all risk that the pair will not be compatible with Cavalier's equipment, including, but not limited to, order cancellation charges.

d. Queue Provisions

(i) Positions of the Parties

122. Cavalier notes that when Verizon denies a request for dark fiber, Cavalier has no idea when such dark fiber might become available.[393] Cavalier must re-submit a request for dark fiber at just the right time once dark fiber does become available, or another carrier might get the dark fiber first.[394] Alternatively, Cavalier must constantly re-submit dark fiber inquiries, incurring a dark fiber inquiry fee in each instance, to avoid missing out on newly-available dark fiber.[395] To address this situation, Cavalier proposes a dark fiber "queue," similar to the queue Verizon uses in making available collocation space.[396] Under Cavalier's proposed language, up to four years after Cavalier inquires about the availability of dark fiber along a route or to a location, Verizon would hold the request in queue, giving Cavalier the first opportunity to obtain dark fiber when it becomes available.[397] Cavalier agrees to respond promptly when dark fiber becomes available to avoid delay in the assignment of the dark fiber.[398] According to Cavalier, there is no support for Verizon's claims that the queue process would be unworkable and burdensome.[399]

123. Verizon maintains that the creation and operation of the proposed queue would impose significant economic and operational burdens.[400] According to Verizon, the proposal calls for it to create a queue system that is far more burdensome and difficult to maintain than the queue for collocation, given the vastly greater numbers of fiber routes than collocation spaces, and the greater turnover in available dark fiber.[401] Verizon asserts that its current process of

393 Cavalier Brief at 38-39.

394 *Id.* at 38.

395 *Id.*

396 Final Proposed Language at 17 (Cavalier Proposed § 11.2.15.4.1).

397 *Id.*

398 Cavalier Rebuttal Testimony of Ashenden at 1-2.

399 Cavalier Brief at 39.

400 Verizon Brief at 31-32.

401 *Id.* at 32.

providing available dark fiber only in response to dark fiber inquiries is "fair, well understood and applied uniformly to all carriers."[402] Verizon also notes that there is no guarantee that Cavalier still would want the dark fiber if it becomes available years down the road, wasting Verizon's time and effort in maintaining the queue.[403] Ultimately, Verizon claims that the proposed queue goes beyond anything required by the Act.[404]

(ii) Discussion

124. We do not adopt Cavalier's proposed section 11.2.15.4.1, which would require a dark fiber queue. Verizon demonstrates that the queue proposed by Cavalier would increase its administrative burdens, particularly under the language proposed by Cavalier, which would require daily, manual dark fiber inquiries for two to four years.[405] Although Cavalier states that it is willing to accept a different duration for the queue, it provides no evidence that could form the basis either for its proposed two-to-four year queue or for some alternative interval. We agree with Verizon that comparisons to its collocation queue are not relevant, because of the significantly larger numbers of dark fibers in Virginia than collocation spaces.[406] Nor has Cavalier demonstrated that its queue is required by the Act or Commission rules. As we discuss above, the additional information we require in response to dark fiber inquiries should help Cavalier better plan its activities and ensure compliance with the dark fiber unbundling rules. Further, as Verizon states, its current process for assigning dark fiber is understood by and applies equally to all competitive LECs.[407] We are concerned that Cavalier's ability to place its requests in queue would place it in a superior position to other competitive LECs with respect to access to unbundled dark fiber. Although Verizon speculates that other competitive LECs could opt into such a provision as well, they may not be able to do so quickly, if in fact they are able to do so at all.[408]

(iii) Arbitrator's Adopted Contract Language

125. As discussed above, the Arbitrator does not adopt any language regarding this aspect of issue C10.

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[402] Verizon Rebuttal Testimony of Albert Panel at 11-12.

[403] Verizon Brief at 32; Verizon Direct Testimony of Albert Panel at 18; Verizon Rebuttal Testimony of Albert Panel at 11.

[404] Verizon Brief at 32; Verizon Direct Testimony of Albert Panel at 19.

[405] Verizon Brief at 31.

[406] *Id.* at 32.

[407] Verizon Rebuttal Testimony of Albert Panel at 11-12.

[408] In particular, the Commission currently is evaluating whether to retain the "pick-and-choose" rule. *Triennial Review Order*, 18 FCC Rcd at 17409-10, 17412-16, paras. 713, 720-29.

8. Issue C14 (Integrated DLC Loops)

a. Introduction

126. The Parties disagree about Verizon's obligation to provide unbundled access to loops served by Integrated Digital Loop Carrier (Integrated DLC or IDLC) systems.[409] As the Commission noted in the *Triennial Review Order*, unbundling in the context of Integrated DLC systems presents particular challenges not always present in the case of other hybrid loops.[410] Nonetheless, the Commission required incumbent LECs "to provide requesting carriers access to a transmission path over hybrid loops served by Integrated DLC systems," recognizing "that in most cases this will be either through a spare copper facility or through the availability of Universal DLC systems."[411]

127. Cavalier proposes language that would require the Parties to conduct trials of two processes for unbundling access to loops served by Integrated DLC systems, and seeks unbundled access to such loops using one of these processes whenever Verizon uses Integrated DLC systems to serve end users.[412] Verizon claims to offer adequate alternatives to unbundling Integrated DLC loops, and thus claims that there is no need to conduct trials of unbundling the loops served by Integrated DLC systems themselves.[413]

b. Positions of the Parties

128. Cavalier expresses dissatisfaction with the level of service it is able to provide over unbundled spare copper loops or Universal Digital Loop Carrier (Universal DLC or UDLC) systems when serving a customer that Verizon previously served by Integrated DLC systems.[414] Cavalier asserts that Verizon must unbundle the loops served by Integrated DLC systems themselves, and proposes language that requires the Parties to conduct trials of hairpin/nail-up and multiple switch-hosting processes for unbundling such loops.[415] If the tests are successful,

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[409] Integrated DLC loops are a specific type of "hybrid loop," which is defined as "a local loop composed of both fiber optic cable, usually in the feeder plant, and copper wire or cable, usually in the distribution plant." 47 C.F.R. § 51.319(a)(2).

[410] Specifically, because the Integrated DLC "system is integrated directly into the switches of incumbent LECs" and incumbent LECs "typically use concentration as a practice for engineering traffic on their networks," meaning that "a one-for-one transmission path between an incumbent's central office and the customer premises may not exist at all times." *Triennial Review Order*, 18 FCC Rcd at 17154, para. 297.

[411] *Id.*

[412] Final Proposed Language at 19-21 (Cavalier Proposed § 11.4).

[413] Verizon Brief at 38-39.

[414] Cavalier Direct Testimony of Vermeulen at 7-8 (discussing inadequacy of loops served by Universal DLC systems).

[415] Final Proposed Language at 19-21 (Cavalier Proposed §§ 11.4.1 – 11.4.6). The "hairpin/nail-up" option generally involves configuring a semi-permanent path and disabling certain switching functions. *Triennial Review Order*, 18 FCC Rcd at 17154, para. 297 n.855. The "multiple switch hosting" option proposed by Cavalier would (continued....)

Cavalier proposes provisions requiring that the Parties meet to develop procedures to implement that unbundling process for Integrated DLC loops "on a fully available, commercial basis under the same rates, terms, and conditions as an unbundled loop provisioned over copper."[416]

129. Verizon responds that it is not obligated to unbundle loops served by Integrated DLC systems.[417] Verizon states that when Cavalier requests an unbundled loop to serve a customer that Verizon had served using Integrated DLC systems, Verizon first seeks to provide Cavalier with a spare copper loop or loop served by a Universal DLC system.[418] If no spare copper loop or Universal DLC loop is available, Verizon offers either to perform a line-and-station transfer[419] to make available space on copper or UDLC facilities or to construct a new copper loop or UDLC.[420] Verizon claims that this allows it to meet its obligation under the *Triennial Review Order* to provide either a spare copper loop or UDLC or other "technically feasible methods of unbundled access."[421] In light of the small number of lines served by IDLC where there is no spare copper loop or UDLC, Verizon sees no justification for conducting trials of methods for unbundling IDLC loops.[422]

130. Verizon notes that, at Cavalier's request, Verizon previously reviewed the hairpin/nail-up process, and found that this approach is not cost-justifiable.[423] With respect to Cavalier's proposed multiple switch hosting process, Verizon states that the approach is not technically feasible given Verizon's current network technology.[424] Verizon also maintains that the 60 days Cavalier has proposed for each trial is too short.[425] Finally, Verizon contends that

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involve "grooming of the integrated loops, such that discrete groups of multiplexed loops may be assigned to transmission facilities, or the termination of loops to integrated network access systems." Final Proposed Language at 19 (Cavalier Proposed § 11.4.3).

[416] *Id.* at 20 (Cavalier Proposed § 11.4.5).

[417] Verizon Brief at 38.

[418] *Id.*

[419] As discussed above, a "line-and-station transfer" in the xDSL context involves switching a customer's service from a loop that is not suitable for providing xDSL service to an available loop that is suitable for providing xDSL service. Similarly, a line-and-station transfer also can be used to switch a customer's service from a loop served by an Integrated DLC system to an available spare copper loop or Universal DLC loop. Verizon Direct Testimony of Albert Panel at 13.

[420] Verizon Brief at 38.

[421] *Id.* (citing *Triennial Review Order*, 18 FCC Rcd at 17154, para. 297).

[422] *Id.* at 39.

[423] *Id.* at 39-40.

[424] *Id.* at 40-41.

[425] *Id.* at 41-42.

Cavalier has not adequately demonstrated that Integrated DLC loops should be unbundled "under the same rates, terms, and conditions as an unbundled loop provisioned over copper."[426]

c. Discussion

131. We decline to adopt Cavalier's proposed language. While Verizon is obligated to offer unbundled loops served by Integrated DLC systems where no spare copper loops or Universal DLC loops are available, the *Triennial Review Order* does not require Verizon to use the particular methods proposed by Cavalier.

132. When a competitive LEC seeks access to an unbundled loop to serve a customer that an incumbent LEC is serving using an Integrated DLC loop, the *Triennial Review Order* gives the incumbent LEC three choices[427]: (1) unbundle a spare copper loop;[428] (2) unbundle a Universal DLC loop; or (3) provide unbundled access to a transmission path over the hybrid loop served by the Integrated DLC system.[429] Verizon's refusal, under any circumstances, to unbundle access to Integrated DLC loops is not consistent with the Commission's rules. The hybrid loop unbundling rules only require incumbent LECs to provide a technically feasible method of access to a DS0 transmission path over the Integrated DLC loop where no spare copper loop or Universal DLC loop is available.[430]

133. We also find that the specific language proposed by Cavalier is at odds with the *Triennial Review Order*. Because incumbent LECs only are required to provide "a technically feasible method of unbundled access" to a transmission path over the Integrated DLC loop,[431] we reject Cavalier's language that would require Verizon to conduct trials of the specific hairpin/nail-up and multiple switch hosting unbundling processes.[432] We also reject Cavalier's claim that Verizon should be required to unbundle Integrated DLC loops whenever desired by Cavalier.[433] The *Triennial Review Order* gives incumbent LECs the choice whether to unbundle

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[426] Verizon Direct Testimony of Albert Panel at 26-27.

[427] Because Integrated DLC loops are "hybrid loops," they are subject to the obligation to unbundle either spare copper facilities or a DS0 transmission path on the hybrid loop. *Triennial Review Order*, 18 FCC Rcd at 17154, para. 297.

[428] Incumbent LECs have the option, instead of unbundling the hybrid loop, "to provide a homerun copper loop . . . if the incumbent LEC has not removed such loop facilities." *Id.* at 17153-54, para. 296.

[429] Specifically, the *Order* states that incumbent LECs must "provid[e] unbundled access to hybrid loops" for narrowband service by providing "an entire non-packetized transmission path capable of voice-grade service (*i.e.*, a circuit equivalent to a DS0 circuit) between the central office and customer's premises." *Id.*

[430] *Id.* at 17153-54, paras. 296-97.

[431] *Id.* at 17154, para. 297.

[432] Final Proposed Language at 19-21 (Cavalier Proposed § 11.4).

[433] *See* Cavalier Direct Testimony of Vermeulen at 7-8 (discussing inadequacy of loops served by Universal DLC systems).